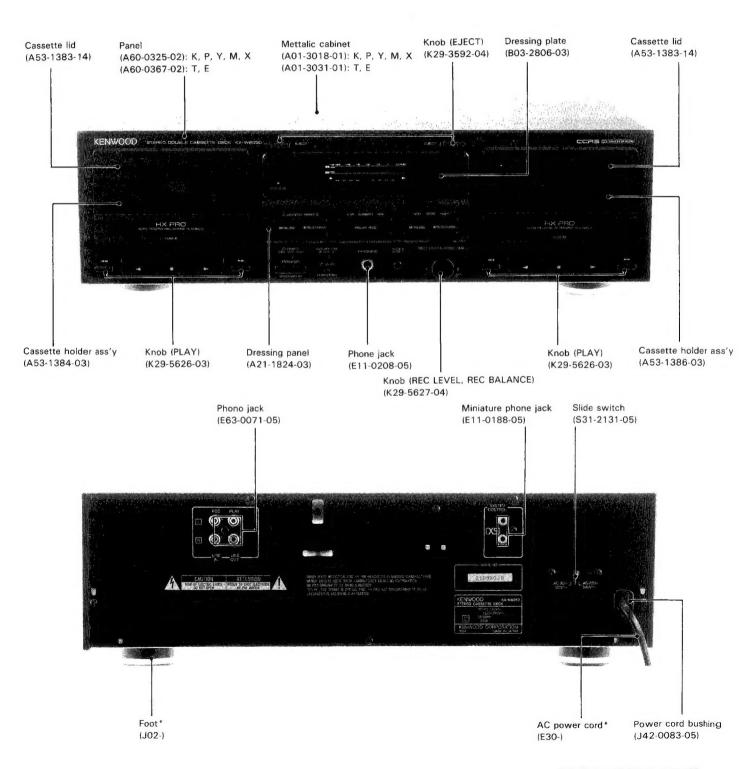
STEREO DOUBLE CASSETTE DECK

# KX-W6050 SERVICE MANUAL

# KENWOOD

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<sup>\*</sup> Refer to part list on page 38.

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### **Accessories**

System control cord..... 1 (Except for U.K. and Europe) (E30-2733-05)

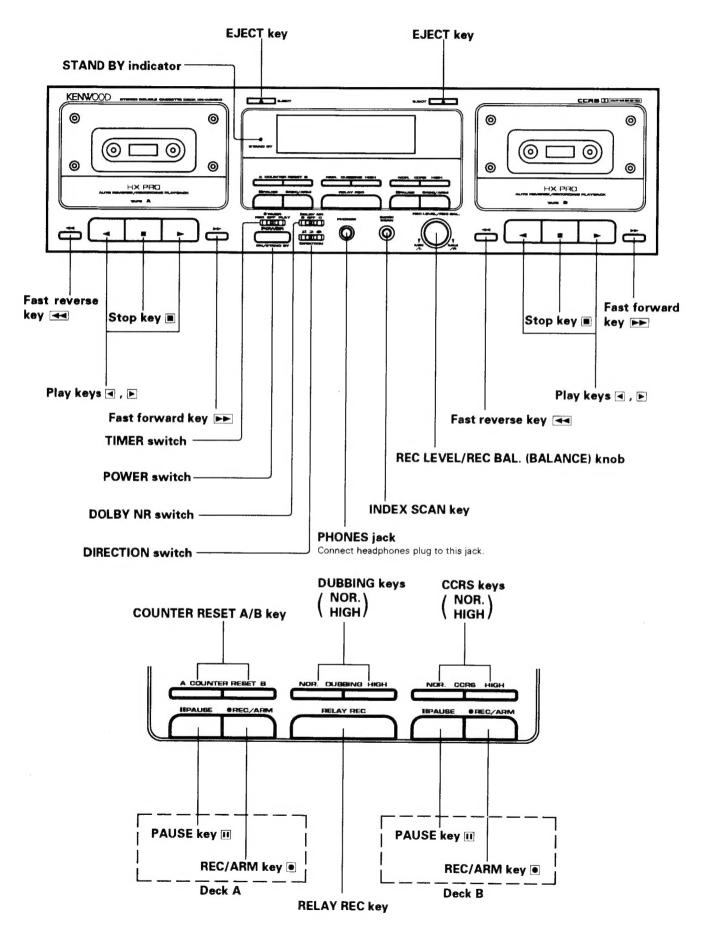




INSTRUCTION MANU	JAL		
B60-1062-00		ENGLISH	
B60-1063-00		FRENCH	P,E
B60-1064-00		CHINESE	M
B60-1065-00		SPANISH	M, E
B60-1066-00		GERMANY, DUTCH, ITALY	Ε
ITEM CARTON CASE			
H50-0512-04		K, P, Y, M, X, E	
H50-0563-04		T	
POLYSTYRENE FOA	MED	FIXTURE	
H10-5101-12	L	K, P, Y, M, X, E	
H10-5102-12	R	K, P, Y, M, X, E	
H10-5420-02	L	T	
H10-5421-02	R	Т	

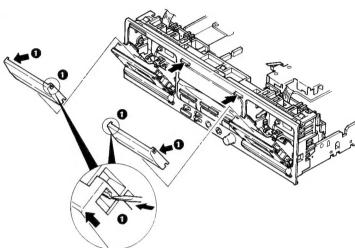
### **CONTROL AND OPERATION**



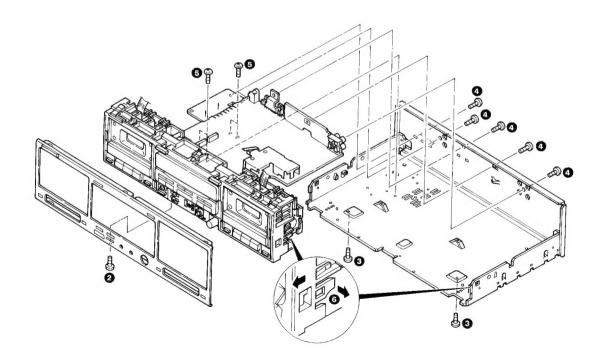
### **DISASSEMBLY FOR REPAIR**

#### ·Take out the case beforehand.

 Push the Eject button, and when the cassette holder have opened, push the two hooks of the right- and left-hand sides with a square-bar standard sorewdriver and the like from the outer side, and remove the lid.

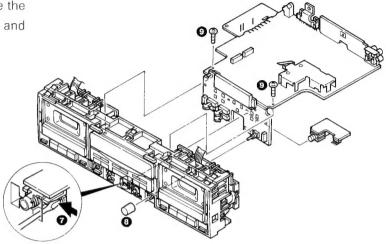


- 2. Remove the screw 2 of the lower part, undo the 5 claws, and remove the front panel.
- 3. Remove the 2 screws 3 of the lower part, remove the 6 screws 4 of the rear side and remove the 4 screws 5 of the transformer, undo the 2 claws 6, and remove the sub-panel ass'y to the front side.

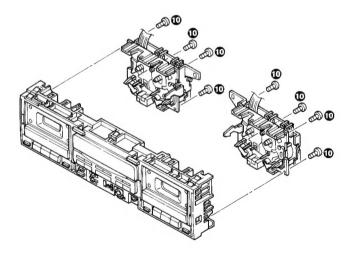


### **DISASSEMBLY FOR REPAIR**

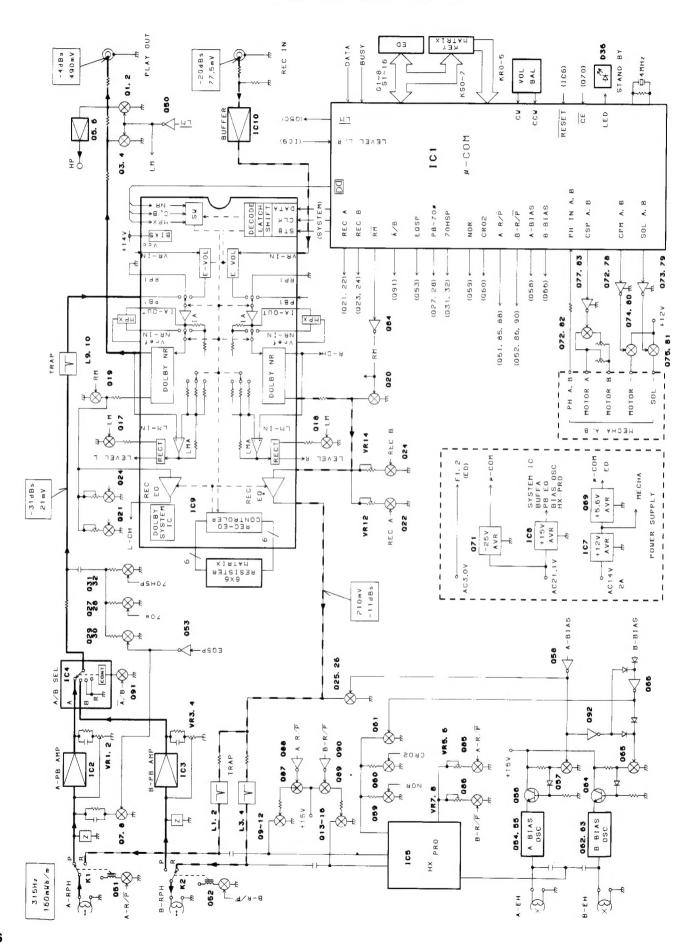
- 4. To remove the X28 (F/7) headphone jack, push the 2 claws with a square-bar standard screwdriver and the like, and undo them.
- 5. Remove the knob **8**, undo the 6 claws, remove the 2 screws **9**, and then remove X28-(A/7), (B/7) and (C/7) (G/7).



6. The mechanism ass'y comes off when the 8 screws of are removed.



### **BLOCK DIAGRAM**



### **CIRCUIT DESCRIPTION**

Record playback amplifier unit (X28-249X-XX)

Ref. No	Parts Name	Use/Function	Operation/Condition
IC1	CXP82324-126Q	MICRO PROCESSOR	
IC2,3	TA8125S	P-B AMP	
IC4	XRU4052B	P-B A/B SW	
IC5	μPC1297CA	DOLBY-HXPRO IC	
IC6	PST529D	RESET IC	
IC7	XRA17812T	+ 12V AVR	
IC8	XRA17815T	+15V AVR	
IC9	HA1215NTA	SYSTEM IC	
IC10	NJM4565D-D or XRA15218-DX	INPUT BUFFER	
Q1~4	2SD1302 (S, T)	PLAY OUT MUTING	CONTROLED BY Q50 ON-MUTE
Q5, 6	2SC1845 (F, E)	HEADPHONE AMP	
Q7, 8	DTC124ES or UN4212	HIGH-SPEED EQ SW	ON-NOMAL SPEED
Q9~12	2SC1845 (F, E)	HX BIAS SW (A)	CONTROLED BY Q87 ON- A REC
Q13~16	2SC1845 (F, E)	HX BIAS SW (B)	CONTROLED BY Q88 ON- B REC
Q17, 18	2SC1740 (Q, R) or 2SC3311A (Q, R)	LEVEL AMP SW	CONTROLED BY Q50 ON-MUTE
Q19, 20	2SD1302 (S, T)	REC MUTE	CONTROLED BY Q84 ON- PLAY
Q21, 22	DTC124ES or UN4212	REC A SW	A REC- ON
Q23, 24	DTC124ES OR UN4212	REC B SW	B REC- ON
Q25, 26	2SC1740S (Q, R), 2SC3311A (Q, R)	REC MITE	A REC- OFF
Q27, 28	DTC1214ES or UN4212	PB EQ 70μ SW	70μ PB- ON
Q29, 30	DTC124ES or UN4212	120 μ HIGH SPEED	A- 120 μ HIGH SPEED DUB. ON
Q31, 32	DTC124ES or UN4212	70 μ HIGH SPEED	A- 70 μ HIGH SPEED DUB. ON
Q50	DTA124ES or UN4112	PB OUT MUTE DRIVER	CONTROLED BY IC1-76 PIN
Q51	DTC124ES or UN4212	A HEAD R/P CONTROLE	CONTROLED BY IC1- 40 PIN, A REC- ON
Q52	DTC124ES or UN4212	B HEAD R/P CONTROLE	CONTROLED BY IC1- 44 PIN, B REC- ON
Ω53	DTC124ES or UN4212	EQ SP- SW	HIGH SPEED DUB- ON
Q54, 55	2SC1740S (Q, R) or 2SC3311A (Q, R)	A-BIAS OSC	
Ω56	2SC3940A (R, S)	A-BIAS CONTROLE	CONTROLED BY Q57
Ω57	DTC143TS or UN4216	A-BIAS ON-OFF SW	CONTROLED BY Q58

## **CIRCUIT DESCRIPTION**

Ref. No	Parts Name	Use/Function	Operation/Condition
Q58	DTA124ES or UN4212	A-BIAS CONTROLE	CONTROLED BY IC1- 41 PIN
Q59	DTC124ES or UN4212	B-BIAS CONTROLE	CONTROLED BY IC1- 43 PIN
Q60	DTC124ES or UN4212	B-BIAS CONTROLE	CONTROLED BY IC1- 42 PIN
Q61	2SD1302 (S, T)	B-BIAS ON-OFF SW	CONTRTOLED BY Q65 B REC- OFF
Q62, 63	2SC2003 (L, K)	B-BIAS OSC	
Q64	2SC3940A (R, S)	B-BIAS CONTROLE	CONTROLED BY Q65
Q65	UN4212	B-BIAS CONTROLE	B REC- OFF
Q66	UN4212 or DTC124ES	B-BIAS CONTROLE	B REC- ON
Q67	2SC1740S (Q, R) or 2SC3311A (Q, R)	GRID DRIVER	CONTROLED BY IC1- 19 PIN
Q68	2SC1740S (Q, R) or 2SC3311A (Q, R)	GRID DRIVER	CONTROLED BY IC1- 20 PIN
Q69	2SC3940A (Q, R)	+5.6 V AVR	
Q70	2SC1740S (Q, R) or 2SC3311A (Q, R)	RESET	CONTROLED BY IC6
Q71	2SA1123 (R, S)	-23 V AVR	
Q72, 78	DTC124ES or UN4212	A OR B CPM SW	
Q73, 79	DTC124ES or UN4212	A OR B SOL SW	
Q74, 80	2SA1534A (R, S)	A OR B CPM SW	
Ω75, 81	2SA1534A (R, S)	A OR B SOL SW	
Q76, 82	2SA1309A (Q, R) or 2SA933S (Q, R)	A OR B CSP SW	
Q77, 83	DTC124ES	A OR B CSP SW	
Q84	DTA124ES or UN4112	REC MUTING DRIVER	CONTROLED BY IC1- 77 PIN
Q85	DTC124ES or UN4212	A BIAS SELECT	A REC- ON
Q86	DTC124ES or UN4212	B BIAS SELECT	B REC- ON
Q87	2SA992 (F, E)	A BIAS CONTROLE	CONTROLED BY Q88
Q88	DTC124ES or UN4212	A BIAS CONTROLE	CONTROLED BY IC1- 40 PIN
Q89	2SA992 (F, E)	B BIAS CONTROLE	CONTROLED BY Q90
Ω90	DTC124ES or UN4212	B BIAS CONTROLE	CONTROLED BY IC1- 44 PIN
Q91	DTC124ES or UN4212	PB A/B SW	CONTROLED BY IC1- 37 PIN
Ω92	DCTC143TS or UN4216	A BIAS CONTROLE	CONTROLED BY Q58

### CIRCUIT DESCRIPTION

### **Description of Functions**

#### **Feature**

#### (a) Recording system

· Relay recording. W reverse

If decks A and B are loaded with a cassette, the direction mode is \_\_or \_\_, one deck is recording and the other is in the REC PAUSE mode, and the recording sources match, then, when the end of the tape on the deck recording is reached, recording continues automatically on the other deck.

#### Conditions:

- Decks A and B are both loaded with a cassette that can be recorded on in the appropriate current tape direction.
- 2 The reverse mode switch is set to = or =.
- 3 The recording source is the same for both decks.
- 4 Neither deck is in ARM. One deck records and the other is stopped.

#### Operation:

#### 1 = mode (A to B only)

When the end of the tape of one side is reached on the deck recording, the deck stops, and the other deck starts recording automatically.

### 2 mode (A to B only)

When the end of the tape of the reverse side is reached on the deck recording, the deck stops, and the other deck starts recording automatically.

### (b) Relay play

If decks A and B are both loaded with a cassette, and the direction mode is  $rac{1}{2}$  or  $rac{1}{2}$ , then when the end of the tape is reached on the deck playing, the other deck starts playing automatically.

#### Conditions:

- 1 Decks A and B are both loaded with a cassette.
- 2 The reverse mode switch is set to or
- 3 One deck plays normally, not with DPSS, and the other is stopped.

### Operation

#### 1 I mode

When the end of the tape is reached on the deck playing, the deck rewinds if it is playing in the forward direction, and fast forwards if it is playing in the reverse direction, and the other deck starts playing automatically in the current tape direction.

### 2 mode

When the end of the tape of the reverse side is reached on the deck playing, the deck stops, and the other deck starts playing in the forward direction.

#### (c) DPSS

SKIP selection, single-tune repeat, autorecord mute, and RE-REC standby operations are performed by pressing the appropriate keys.

#### (d) Timer operation

Timer recording and playback are possible by setting the timer switch. When the timer switch has been set to PLAY or REC and the power is switched on, the desired operation takes places after an initial

delay (about four seconds). With timer recording, "TUNER PLAY" 28H (serial code) is output about 1.5 seconds after the power comes on, and the amplifier input selector is set to TUNER.

### (e) Dubbing

Normal and high-speed dubbing from deck A to deck B are possible with the NORMAL DUBBING and HIGH-DUBBING keys.

#### (f) CCRS

Synchronized recording is done by automatically optimizing the deck recording level to suit the CD maximum output level.

#### Procedure

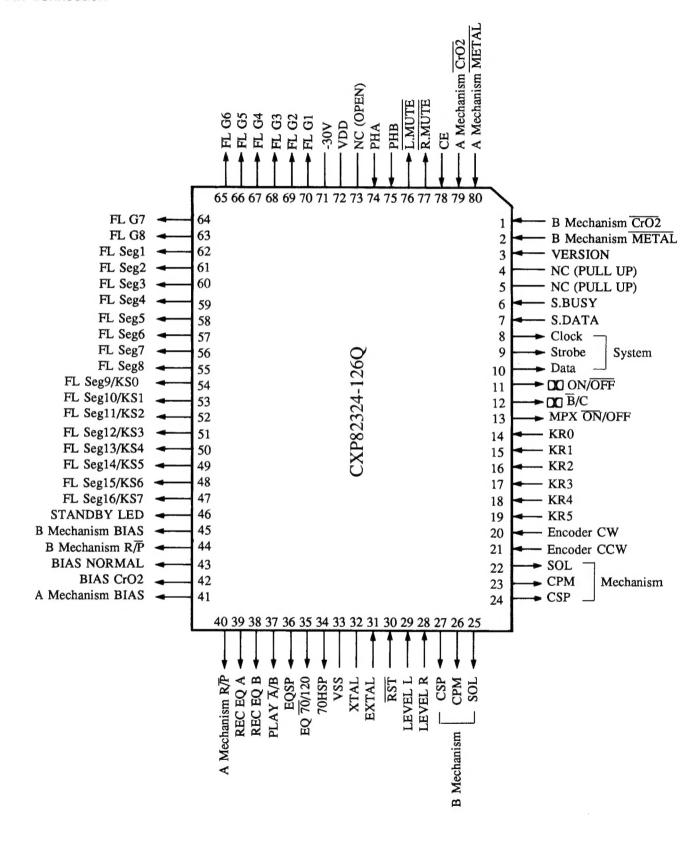
- 1 Load a disc in the CD player and a recordable tape in the deck.
- 2 Set the amplifier input selector to CD, and set TAPE2 MONITOR to OFF. (For models with a REC OUT selector, set REC OUT to CD.)
- 3 Set CD TRACK/PGM and EDIT1/2 as required.
- 4 If you want to do relay recording, press the RE-LAY REC key.
- 5 Press the CCRS/HI-CCRS key.

#### (g) Serial communication function

Various serial operations are possible when the deck is combined with a system having a serial communication bus.

### **CIRCUIT DESCRIPTION**

**Pin Connection** 



## **CIRCUIT DESCRIPTION**

### Pin Description

Pin No.	I/O	Name	Description	
1	ŀ	B Mechanism CrO2	B-mechanism CrO2 tape detection	H: NORMAL
2	1	B Mechanism METAL	B-mechanism metal tape detection	L: METAL
3	1	VERSION	Destination changeover	H: 6050, L: 4050, W893
4			Unused (PULL UP)	
5			Unused (PULL UP)	
6	I/O	S. BUSY	Serial BUSY input/output	
7	I/O	S. DATA	Serial data input/output	
8	0	CLK	System IC clock output	
9	0	STB	System IC strobe signal input	
10	0	DATA	System IC serial data output	
11	0	DO ON/OFF	Dolby ON/OFF control	H: ON
12	0	DIO B/C	Dolby B/C switching	H: C
13	0	MPX ON/OFF	MPX filter switching	L: ON
14~19	ı	KR0~KR5	Key return signal input	H: RETURN
20	i	Encoder CW	Encoder clock signal input	H: RETURN
21	ı	Encoder CCW	Encoder clock signal input	H: RETURN
22	0	SOLA	A-solenoid control	H: ON
23	0	СРМА	A-capstan motor control	H: ON
24	0	CSPA	A-capstan motor switching	H: NORMAL L: HIGH SPEED
25	0	SOLB	B-solenoid control	H: ON
26	0	СРМВ	B-capstan motor control	H: ON
27	0	CSPB	B-capstan motor switching	H: NORMAL L: HIGH SPEED
28	ı	LEVEL R	CCRS, DPSS Rch signal input	
29	ı	LEVEL L	CCRS, DPSS Lch signal input	
30		RESET	Reset signal input	L: RESET
31~32	ı	EXTAL, XTAL	Clock oscillator connection terminal (10 MHz)	
33		Vss	GND	

# **CIRCUIT DESCRIPTION**

Pin No.	1/0	Name	Description		
34	0	70HSP	EQ SP HIGH & BIAS 70 μs	H: ON	
35	o	120/70	Bias switching	H: 120 μs	
36	0	EQ SPEED	PLAY EQ SPEED switching	H: NORMAL	
37	0	PLAY A/B	A/B head switching	H: B head ON	
38	0	REC EQ B	REC equalizer A/B switching	··	
39	0	REC EQ A	REC equalizer A/B switching		
40	0	A Mechanism R/P	A REC/PLAY swtiching	H: REC	
41	0	A Mechanism BIAS	A bias ON/OFF control	H: ON	
42	0	BIAS CrO2	PLAY BIAS SWITCHING	H: CrO2	
43	0	BIAS NOR	PLAY BIAS SWITCHING	H: CrO2	
44	0	B Mechanism R/P	B REC/PLAY switching	H: REC	
45	0	B Mechanism BIAS	B bias ON/OFF control	H: ON	
46	О	STBY LED	Standby LED ON	H: ON	
47~54	0	KS7~KS0 & Seg 16~9	Key scan signal output & FL tube segment signal output	H: SCAN H: ON	
55~62	0	Seg 8~1	FL tube segment signal output	H: ON	
63~70	0	Grid8∼1	FL tube grid signal output	H: ON	
71		VFDP	FL tube driving voltage (-30 V)	H: ON	
72		VDD	Positive power supply terminal (+5V)		
73			Unused (OPEN)		
74	1	РНА	A-mechanism rotation detection input		
75	ı	РНВ	B-mechanism rotation detection input		
76	О	L MUTE	Line mute control	L: ON	
77	0	R MUTE	Rec mute control	L: ON	
78	1	CE	Backup detection terminal	L: BACK UP	
79	I	A Mechanism CrO2	A-mechanism CrO2 tape detection	H: NORMAL	
80	ı	A Mechanism METAL	A-mechanism metal tape detection	L: METAL	

### **CIRCUIT DESCRIPTION**

### **Test Mode**

The system enters this test mode when KS4 (TP4) and KR5 (TP3) are shorted together with a diode and the AC power plug connect to the AC cutlet.

Cancel method: Press the REC pause key or disconnect the AC power plug from the AC outlet.

Mode No	Timer switch position	Key	Operation
1	-	-	ALL ON-DISPLAY All the indicators light for about 1.5 sec. Keys are enabled after the indicators go out.
2	-	-	MECHANICAL SWITCH DISPLAY The state of each mechanical switch is shown on the level meter.
			B OFF C DECK A  F RVS  -∞ -25
3	OFF	REC	4 SECOONDS RECORDING Record for 4 seconds, retums to the begining, and play back (can be repeated).
			REC PLAY
4	PLAY	POWER	AUTOMATIC TIMER PLAY Set timer play when the power is switched on.
			DECK A DECK B  HI-SP NOR-SP HI-SP NOR-SP 4 SEC 12 SEC 4 SEC 12 SEC  START STOP

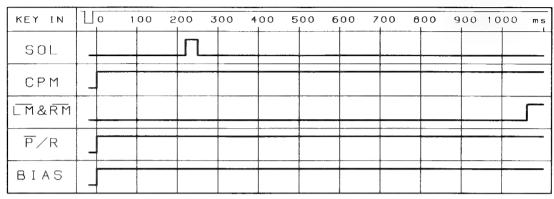
## **CIRCUIT DESCRIPTION**

Mode No	Timer switch position	Key	Operation			
5	REC	POWER	AUTOMATIC TIMER RECORDING Set timer recording when the power is switched on. (Deck B only)			
			REC RWD PLAY			
			START			
6	OFF	*	PLAY BACK SPEED SWITCHING			
			FWD Key: Normai speed P.B (FWD) FF Key: Hi-speed P.B (FWD) RVS Key: Normai speed P.B (RVS) RWD Key: Rewind			
7	OFF	H.DUBB N.DUBB	DUBBING MODE The dubbing mode is entered pressing. Then dubbing key for both high and normal. If the dubbing key is pressed after that, only the speed and circuit system changed.			

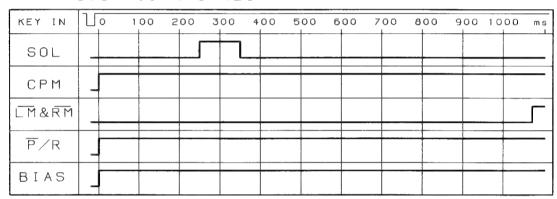
### **CIRCUIT DESCRIPTION**

### **TIMING CHART**

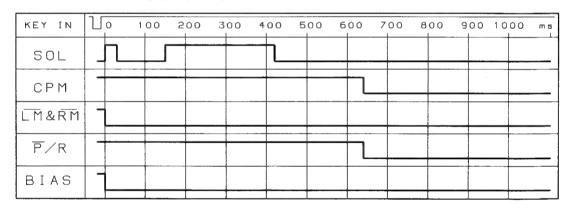
STOP to FWD REC



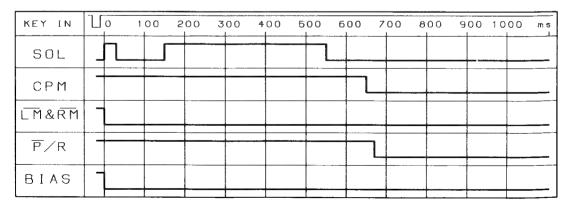
STOP to RVS REC



FWD REC to STOP

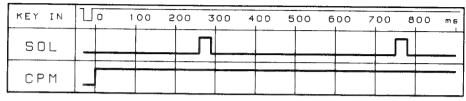


RVS REC to STOP

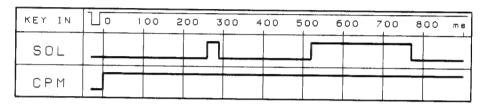


### **CIRCUIT DESCRIPTION**

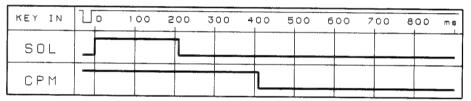
STOP to FF



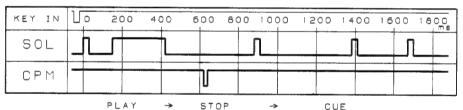
STOP to RWD



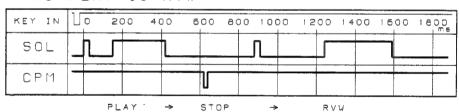
FF/RWD to STOP



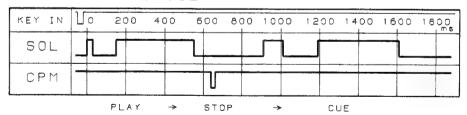
FWD PLAY to CUE



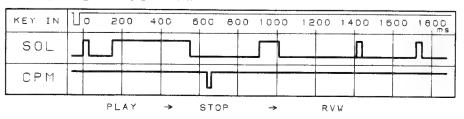
FWD PLAY to RVW



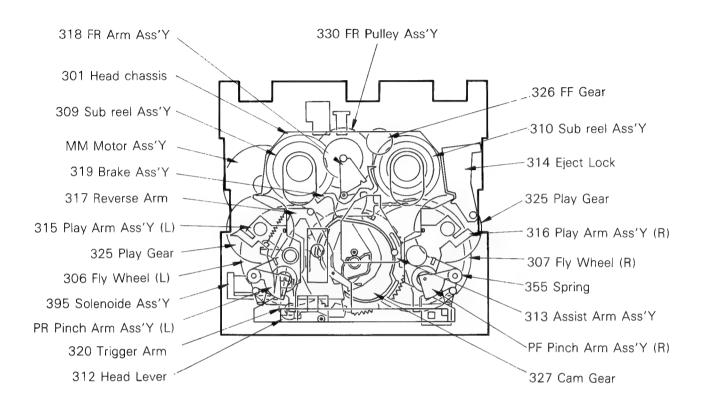
RVS PLAY to CUE

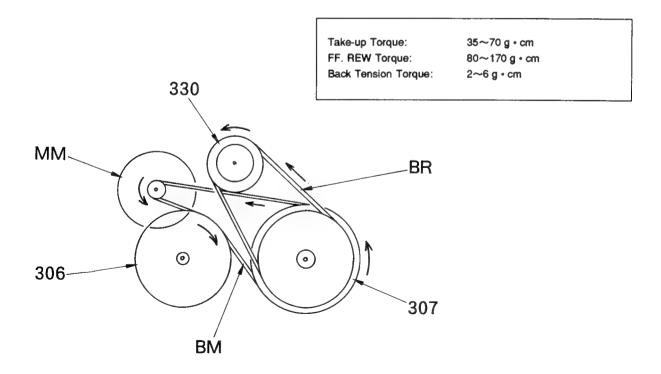


RVS PLAY to RVW

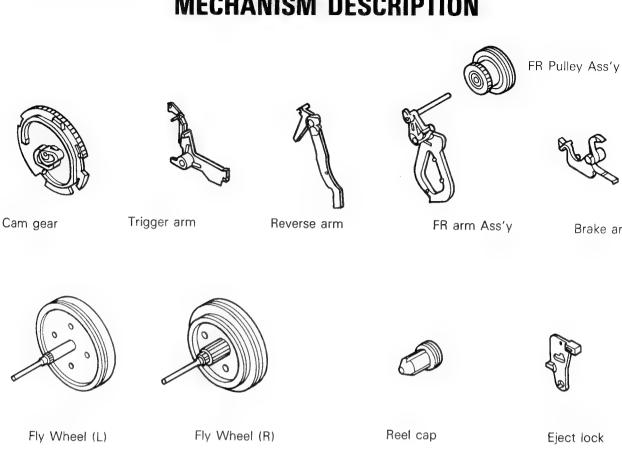


### **MECHANISM DESCRIPTION**





### **MECHANISM DESCRIPTION**



















Eject lock

Brake arm

FF gear

Subreel Ass'y (R)

Subreel Ass'y (L)

Pinch arm Ass'y (L)

Pinch arm Ass'y (R)

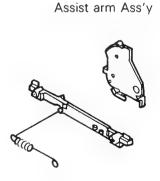


Play arm Ass'y (L)

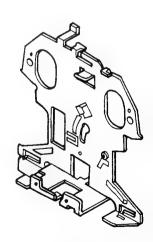
Play gear



Play arm Ass'y (R)



Head lever



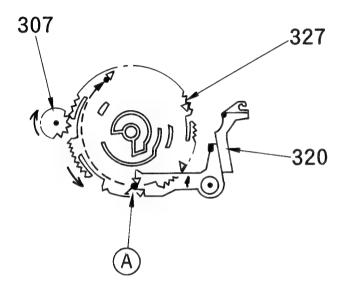
Head chassis

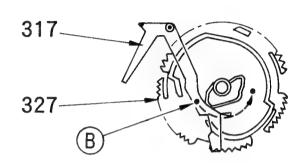
### **MECHANISM DESCRIPTION**

#### **FWD PLAY/REC**

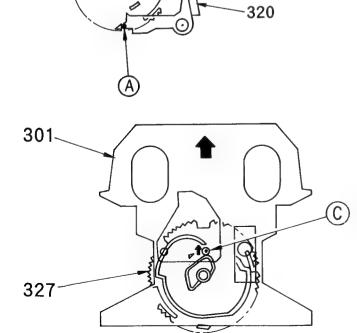
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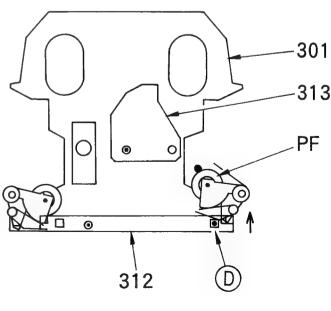
- 1) The plunger turns ON for 30 ms, and turns OFF immediately.
- 2 The boss (A) on the trigger arm comes off the stopper, and the cam gear begins to rotate.
- 3 The boss B on the rear arm passes through the inner side of on the cam gear.





- ④ The cam of the cam gear pushes the boss © on the assist arm ASS'Y up, and the rotation of the cam gear is stopped by the boss ⑥ on the trigger arm and gets at the FWD PLAY/REC position.
- (5) Since the assist arm ASS'Y is fixed on the head chassis, the head chassis also rises up to the FWD PLAY/REC position.
- ⑥ The pinch roller (R) at the FWD side is also pushed up by the boss ⑥ of the head lever on the head chassis, and touches the capstan.

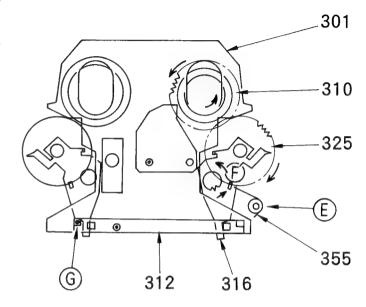




### **MECHANISM DESCRIPTION**

① Since the play arm ASS'Y (R) becomes free as a result of the rise of the head chassis, it is rotated in the arrow direction (E) by the spring (E), and the play gear is engaged with the gear of the sub-reel ASS'Y (R), thereby transmitting the rotation of the flywheel R to the reel (R).

The play arm ASS'Y of the L-side also becomes free from the head chassis, but it does not rotate because it is in contact with the boss **©** of the head lever.



#### **RVS PLAY/REC**

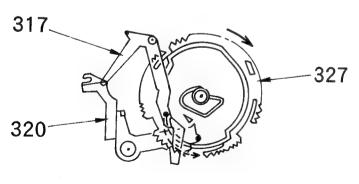
- 1) The plunger turns ON for 100 ms.
- ② The boss on the trigger arm comes off, and the cam gear begins to rotate.

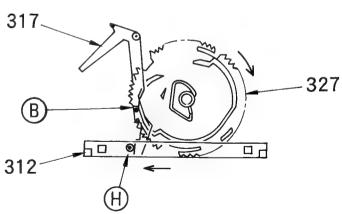
Since the trigger arm is pulled by the plunger for 100 ms, the boss (B) on the roverse arm passes through the outer side of the cam on the cam gear.

③ Since the reverse arm also moves concurrently with the rotation of the cam gear and pushes the boss ⊕ on the head bar, the head rotates.

(Schematics of the head rotation)

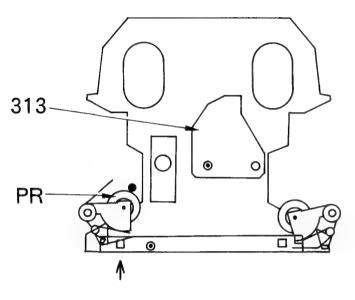
4 The head chassis rises in the same way as in the forward play, and is fixed at the RVS PLAY/REC position.



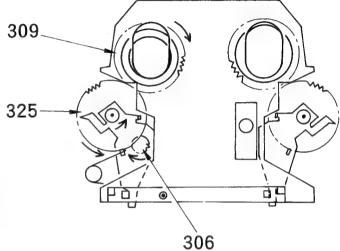


### **MECHANISM DESCRIPTION**

(5) When the head lever moves, the pinch roller (L) is pushed up.



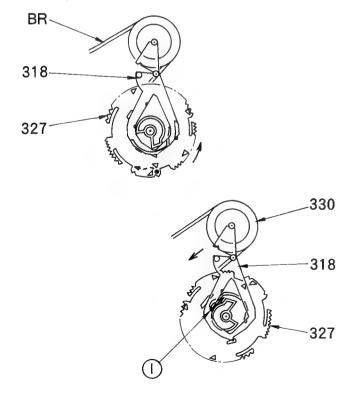
(6) The play gear is engaged with the gear of the subreel ASS'Y and the rotation of the flywheel (L) is transmitted to the reel (L).



#### FF

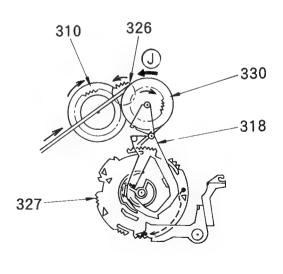
- 1) The plunger turns ON for 30ms.
- 2 The cam gear begins to rotate.
- The FR arm ASS'Y is pulled to the arrow direction by the belt of the FR pulley ASS'Y.

As a result, the boss ① on the FR arm ASS'Y passes through the innermost circumference trajectory on the cam gear.



4 After 420 ms the plunger is turned ON once again for 30 ms and passes over the stopper, the cam gear continues to rotate, and is held at the next stopper position.

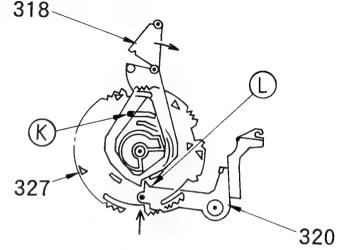
At that time the FR arm ASS'Y also moves in the arrow direction ①, the gear of the FR pulley ASS'Y and the gear of the sub-reel ASS'Y (R) are engaged with the FF gear, the reel (R) is rotated, and as a result the mechanism gets in the FF mode.

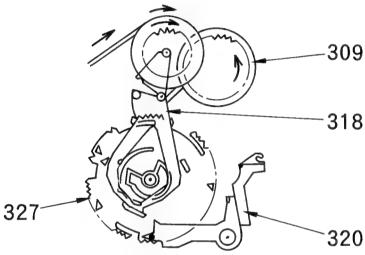


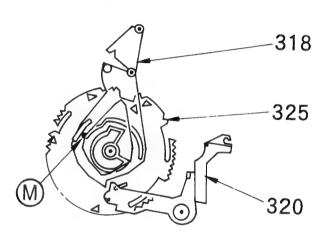
### **MECHANISM DESCRIPTION**

#### **RWD**

- 1. The plunger turns ON for 30 ms, and the cam gear begins to rotate.
- 2. After 250 ms the plunger turns ON once again for 250 ms, but since the FR arm ASS'Y is tilted to the arrow direction by the boss (K) at that time, the FR arm ASS'Y is held by the projection (L) of the trigger arm, it is further tilted to the sub-reel ASS'Y (L) direction by the boss (M), and the reel (L) rotates, thereby switching the operation of the mechanism to the RWD mode.

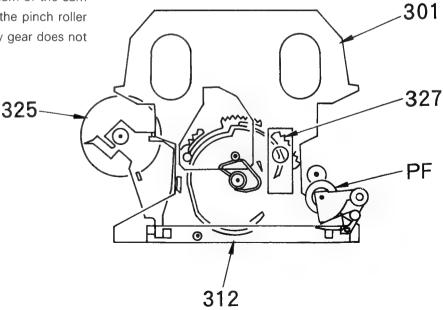






#### FF/RWD

The head chassis is also raised by the cam of the cam gear, but it is held at a position where the pinch roller does not touch the capstan and the play gear does not touch the reel ASS'Y.



### **MECHANISM DESCRIPTION**

#### PLAY/REC → STOP

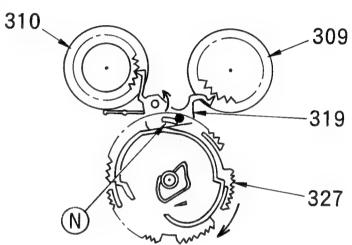
- 1) The plunger turns ON for 30 ms.
- ② After 120 ms the plunger turns ON once again and is kept ON for 270 ms in the FWD mode and for 400 ms in the RVS mode, and the cam gear rotates up to the STOP position.

### FF/RWD → STOP

1 The plunger turns ON for 210 ms, and the cam gear rotates up to the STOP position.

#### **BRAKE**

① Since the brake arm is rotated in the arrow direction by the boss (N) on the cam gear, the gear of the reel ASS'Ys (L) and (R) are stopped for approximately 40 ms immediately before the STOP position.

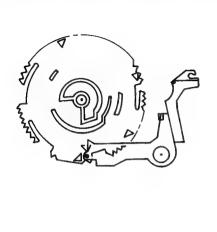


### **CUE/REVIEW**

The cam gear mechanism is returned once from the PLAY state to the STOP position, and then it is carried once again to the CUE/REVIEW position by the plunger.

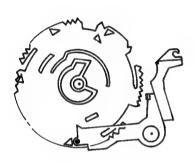
### **MECHANISM DESCRIPTION**

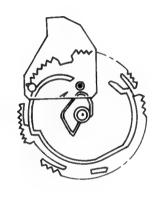
POSITION OF THE CAM GEAR IN THE VARIOUS MODES.



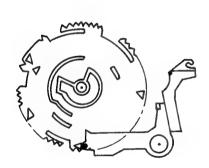


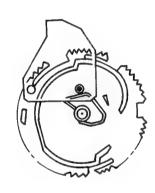
STOP



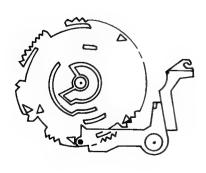


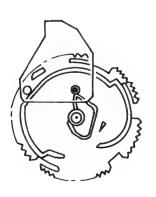
PLAY/REC





FF/RWD





CUE/REVEW

### **ADJUSTMENT**

Order	ltem	Input setting	Output setting	Deck settin	Adjustment points	Adjustment method	Fig.
	TAPE: NORMAL	I, set the respective DOLBY: OI ction (Recording/play	FF INPUT:				
(1)	Degaussing and cleaning	_	<u>-</u>	Power: off, Degaussing, cleaning, PLAY	Recording heads, Erase heads, Capstans, Pinch rollers	Degauss the recording/play heads by a head eraser. Clean the recording/play heads, erase heads capstans and pinch rollers by a cotton swab soaked with alcohol.	
(2)	Recording/play head azimuth	SCC-1727, TCC-153, MTT-114, 10 kHz, – 10 dBs	(B)	PLAY	Azimuth adjust- ment screw	Maximize the output and adjust so that the Lissajous figure nears a line slanted 45°	(a)
II. Print	ed circuit board adj	justment Note: Fir	st perform the doul	ole-speed adjustme	nt.		
(1)	Tape speed (double)	SCC1727 TCC-110 MTT-114 3 kHz	(B)	TEST MODE  4 → 3 short  AC PLUG CON- NECT	A DECK: VR51 B DECK: VR53	Adjust so that the frequency is 6 kHz at the tape center.	
(2)	Tape speed (normal)	SCC1727 TCC-110 MTT-111 3 kHz	(B)	TO AC OUTLET FF KEY HI- SPEED F. PLAY NOR SPEED KEY	A DECK: VR50 B DECK: VR52	Adjust so ;that the frequency is 3 kHz at the tape center.	No. of Market
III. Prin	ted circuit board ad	ljustment					
		MTT-150 400 Hz MTT-256, SCC1727 315 Hz (160 mWb/m)	(B)	PLAY	A DECK: VR1 (L) VR2 (R) B DECK: VR3 (L) VR4 (R)	Adjust that the play- back output is -1 dBs	
(1)	Playback level					Adjust that the play- back output is -4 dBs	
	MTT-256U, TCC-160 315 Hz (250 mWb/m	TCC-160				Adjust that the play- back output is -0 dBs	
(2)	Bias current	1 kHz - 20 dBs	(B)	Adjust electronic volume so that the recording monitor output becomes – 20 dBs at 1 kHz, and record and play 1 kHz adn 10 kHz alternately.	A DECK: VR5 (L) VR6 (R) B DECK: VR7 (L) VR8 (R)	Record 1 kHz and 10 kHz reciprocally, and adjust so that they are identical in pplayback level.	
(3)	RECORD LEVLE	1 kHz 10 dBs	(B)	1 kHz - 10 dBs	A DECK (L): VR11 (R): VR12 B DECK (L): VR13 (R): VR14	Adjust the rairable resistor so that t playing level at -10 dBs is obtained.	
(4)	BIAS OSCILAT- ING FREQUENCY	Load the non recorded tapes on Deck A and B.	Connect the frequency counter between E. H & GND on Deck A, between E. H & GND on Deck B.	REC	DECK A: L20 DECK B: L21	Adjust so that the frequency counter shows 105 kHz.	
(5)	BIAS LEAK	Load a the non	(B)	Load a metal tape. and dub in a high speed mode.	L9 (L) L10 (R)	Minimum (Point)	

### REGLAGE

Ordre	Sujet	Réglage d'entrée	Réglage de sortie	Réglage de platine	Points d'ajustement	Méthode d'ajustement	Figure
	TAPE: NORMAL	ntraire, régler les cor DOLBY: OFF cassette (ajustement	INPÚT: LI	NE			
(1)	Démagnétisation et nettoyage		_	Alimenmtation coupée, démagné- tisation, net- toyage, lecture	Têtes d'enregistre- ment, têtes d'effa- cement, cabestans, galets presseur	Démagnétiser les têtes d'enregistre-ment/lecture avec un seffaceur de tête. Nettoyer les tête d'enregistremet/lecture, les têtes d'effacement, les cabestans et les galets presseur avec un coton-tige trempé dans de l'alcool.	-
(2)	Azimut de tête d'enregistre- ment/lecture	SCC-1727, TCC-153, MTT-114, 10 kHz, - 10 dBs	(B)	PLAY	Vis d'ajustement de l'azimut	Maximiser la sortie et ajuster pour que al figure de Lissajous s'approche d'une ligne inclineé sur 45°	(a)
II. Ajus	tement de la plaquett	e de circuits imprimé	s. Note: Commencer	par effectuer le régla	age de la vitesse dou	ble.	
(1)	Vitesse de bande (double)	SCC1727 TCC-110 MTT-114 3 kHz	(B)	MODE TEST  4 → 3 reliées FICHE SECTEUR BRANCHEE A UNE PRISE DE COURANT	A DECK: VR51 B DECK: VR53	Ajuster pour que la fréquence soit 6 kHz au centre de bande	
(2)	Vitesse de bande (normale)	SCC1727 TCC-110 MTT-111 3 kHz	(B)	TOUCHE FF GRANDE VITESSE TOUCHE DE LEC- TURE AVANT VITESSE NORMALE	A DECK: VR50 B DECK: VR52	Ajuster pour que la fréquence soit 3 kHz au centre de bande.	
III. Ajus	stement de la plaquet	te de circuít imprimé.					
		MTT-150 400 Hz				Ajuster pour que la sortie de lecture soit de - 1 dBs	
(1)	Niveau de lecture	MTT-256, SCC1727 315 Hz (160 mWb/m) MTT-256U,	(B)	PLAY	A DECK: VR1 (L) VR2 (R) B DECK: VR3 (L) VR4 (R)	Ajuster pour que la sortie de lecture soit de -4 dBs	
		TCC-160 315 Hz (250 mWb/m)				Ajuster pour que la sortie de lecture soit de -0 dBs	
(2)	Coourant de polari- sation	1 kHz - 20 dBs	(B)	Ajuster les VR électroniques pour que la sortie de contrôle d'enregis- trement soit de – 20 dBs à 1 kHz pouis enregistrer 1 kHz et 10 kHz réciproquement et les fire.	A DECK: VR5 (L) VR6 (R) B DECK: VR7 (L) VR8 (R)	Enregister 1 kHz et 10 kHz réciproque- ment et ajuster pour qu'ils et ajuster pour qu'ils soient identi- ques au niveau de lecture.	
(3)	Niveau d'enregis- trement (LEVEL)	1 kHz - 10 dBs	(B)	1 kHz - 10 dBs	A DECK (L): VR11 (R): VR12 B DECK (L): VR13 (R): VR14	Régler la résistance variable pour obtenir un niveau de lecture de -10 dB.	
(4)	FREQUENCE D'OSCILLATION DE POLARISATION	Mettre en place des cassettes non enregistrees dans les platines A et B	Raccorder le compteur de fre- quence enter E. H et GND de la pla- tine A. enter E. H et GND de la pla- tine B.	Emregiostrement	DECK A: L20 DECK B: L21 (X28-1380-01)	Regler de maniere à ce que le coaputeur de frequence indique 105 kHz.	
(5)	FUITE DE POLARI- SATION	Mettre en place une cassette non enregistree dans la platine A	(B)	Mettre en place unebande metal et copier en mode de vitesse elevee.	L9 (L) L10 (R)	Minimum (Point)	

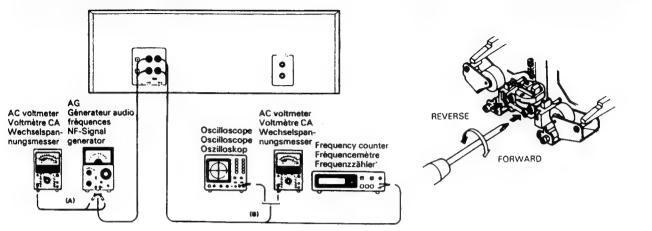
## **ABGLEICH**

Rel- henfo- lge	Gegenstand	Eingangs- Einstellung	Ausgangs- Einstellung	Deck-Einstellung	Abgleichpunkte	Abgleichmethod	Ab- Ildung
Wenn n	TAPE: NORMAL	en, die einzelnen Scha DOLBY: OFF Feil (Einstellung des A	INPUT/ LII	NE			
(1)	Entmagnetisierung und Reinigung	-	_	Ausschalten, Ent- magnetisierung. Reinigung, Wie- dergabe	Aufnahmeköpfe Löschköpfe, Ton- wellen, Andruck- rollen	Die Aufnahme-/Wiedergabeköpfe mit einem Tonkopf- Entmagnetisierer ent- rmagnetisieren. Die Aufnahme-/Wiedergabeköpfe, die Löschköpfe, die Tonwellen und die Andruckrollen mit einem mit Alkohol befeuchteten Wattestäbchen reinigen.	
(2)	Azimuth des Aufnahme-/Wie- dergabekopfes	SCC-1727, TCC-153, MTT-114, 10 kHz, – 10 dBs	(B)	PLAY	Azimuth- Einstellschraube	Den Ausgang maxi- mieren und so ein- stellen, daß die Lissajousfigur sich ei- ner um 45° geneig- ten Linie annähert.	(a)
II. Leite	rplatten-Einstellung. I	Hinseis: Zuerst die Do	ppelgeschwindigkeit	senstelung durchfüh	ren.		
(1)	Bandgeschwindig- keit (droppelt)	SCC1727 TCC-110 MTT-114 3 kHz	(B)	TEST-MODUS  4 → 3 kurz  NETSTECKER-  ANSCHL  AN NETZ-	A DECK: VR51 B DECK: VR53	So einstellen, daß die Frequenz in der Band- mitte 6 kHz beträgt	
(2)	Bandgeschwindig- keit (normale)	SCC1727 TCC-110 MTT-111 3 kHz	(B)	STECKDOSE FF KEY HIGH-SPEED F. PLAY KEY NOR-SPEED	A DECK: VR50 B DECK: VR52	So einstellen daß die Frequenz in der Band- mitte 3 kHz beträgt	
III. Leite	erplatten-Einstellung (	X28-2300)					· · · · · · · · · · · · · · · · · · ·
(1)	Wiederbepegel	MTT-150 400 Hz MTT-256, SCC1727 315 Hz (160 mWb/m) MTT-256U, TCC-160	(B)	PLAY	A DECK: VR1 (L) VR2 (R) B DECK: VR3 (L) VR4 (R)	So einstellen, daß der Wiedergabe-Ausgang – 1 dBs beträgt So einstellen, daß der Wiedergabe-Ausgang – 4 dBs beträgt So einstellen, daß der Wiedergabe-Ausgang	
		315 Hz (250 mWb/m)		Die elektronischen		- O dBs beträgt	
(2)	Vormagnetisie- rungsstrom	1 kHz - 20 dBs	(B)	Regewiderstände so einstellen, daß der Aufnahme- monitor-Ausgang – 20 dBs bei 1 kHz beträgt, dann 1 kHz und 10 kHz abwechsend auf- nehmen und wie- dergeben.	A DECK: VR (5L) VR (6R) B DECK: VR (7L) VR (8R)	1 kHz und 10 kHz abwechselnd aufneh- men und so einstel- len, daß sie im Wiedergabepegel identisch sind.	
(3)	AUFNAHMEPEGEL	1 kHz - 10 dBs	(B)	1 kHz - 10 dBs	A DECK (L): VR11 (R): VR12 B DECK (L): VR13 (R): VR14	Den Stellwiderstand so einstellen, daß ein Wiedergabepegel von – 10 dBs erhalten wird	
(4)	VORMAGNETISIE- RUNGS OSZILLATIONS- FREQUENZ	Unbespielte Kas- setten in Deck A und B einsetzen.	Den Frequenzzah- ler zwischen E. H und GND von Deck A und zwi- schen E. H und GND von Deck B anschließen.	REC	DECK A: L20 DECK B: L21	So einstellen, deß 105 kHz auf dem Frequenzzahler ange- zeigt wird.	
(5)	VORMAGNETISIE- RUNGSSTREUUNG	Eine unbespielte kassette in Deck A einsetzen.	(B)	Eine Metal I band- kassette einsetzen und mit hoher Ge- schwindigkeit Überspielen.	L9 (L) L10 (R)	Minimum (Punkt)	

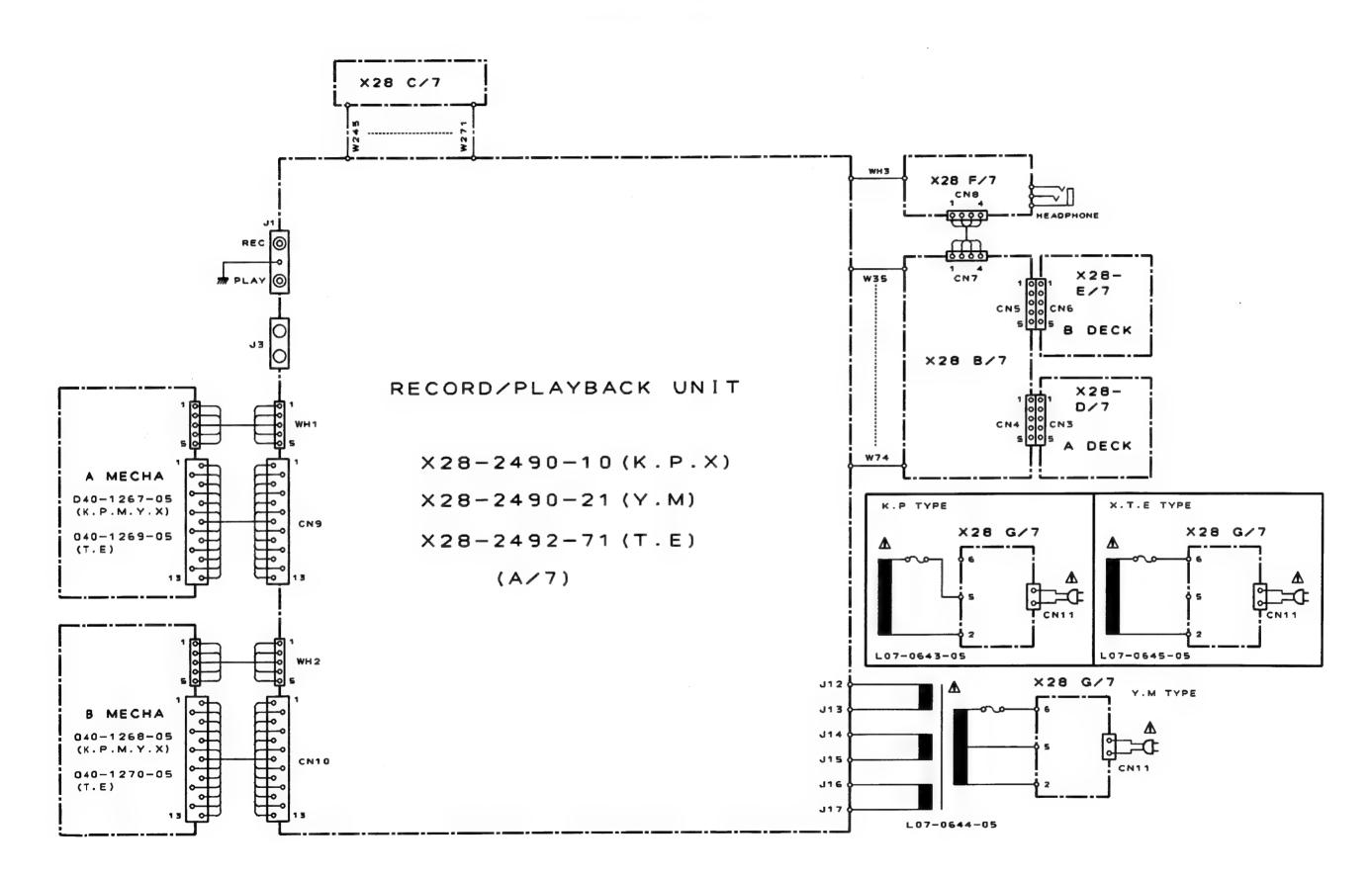
# ADJUSTMENT/REGLAGE/ABGLEICH

### SYSTEM CONNECTIONS

### (a) AZIMUTH ADJUSTMENT SCREW

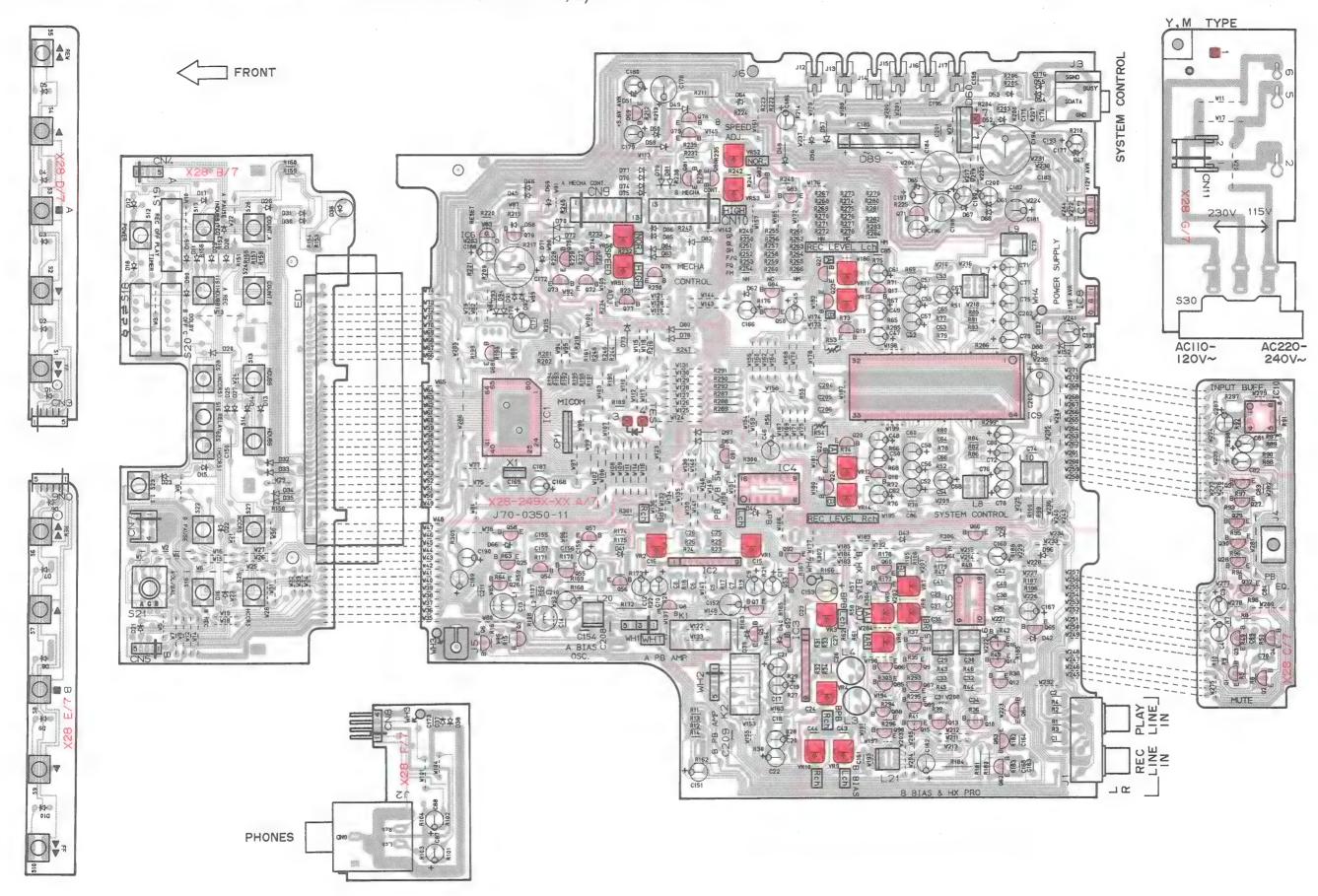


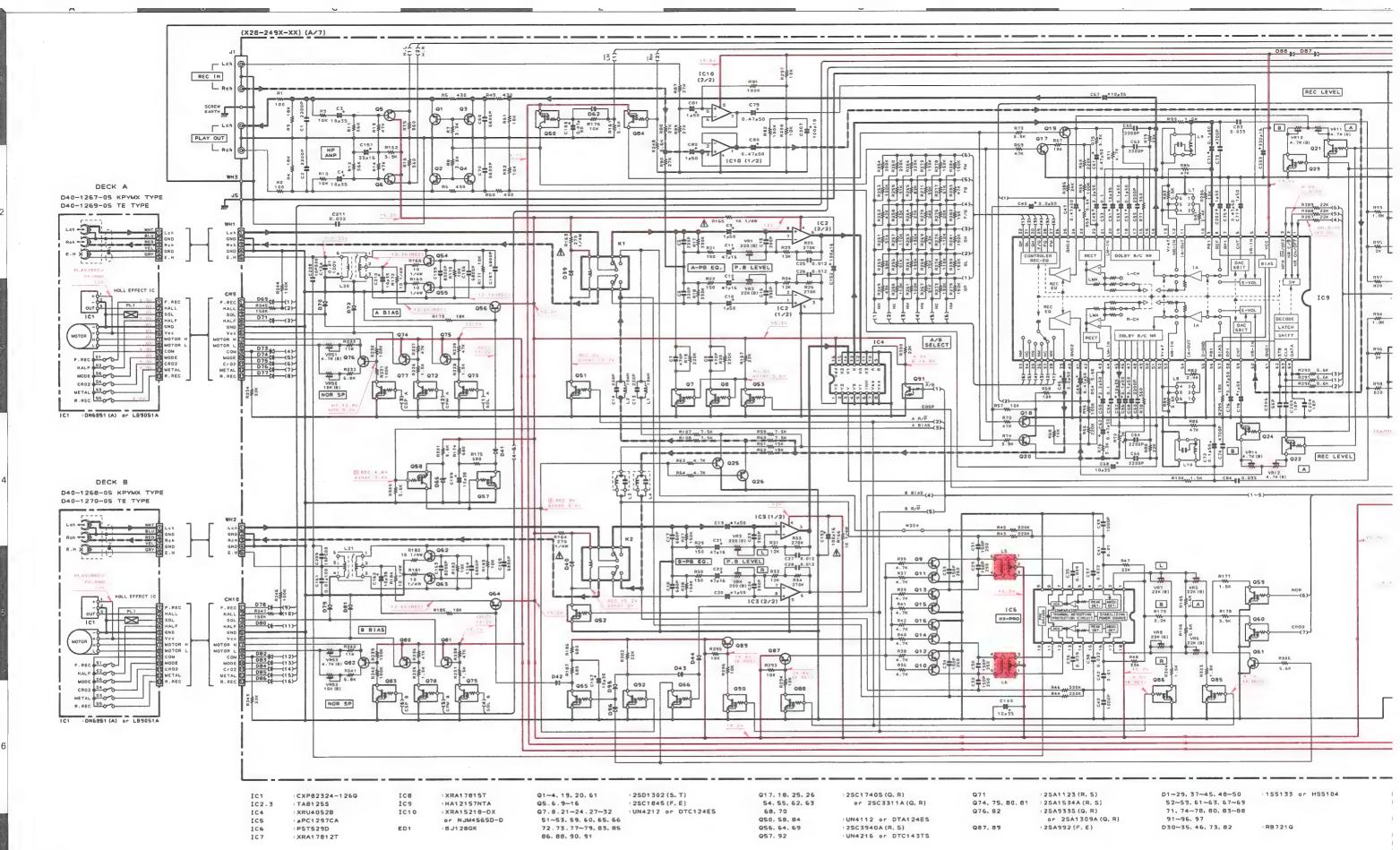
# KX-W6050 KX-W6050 WIRING DIAGRAM



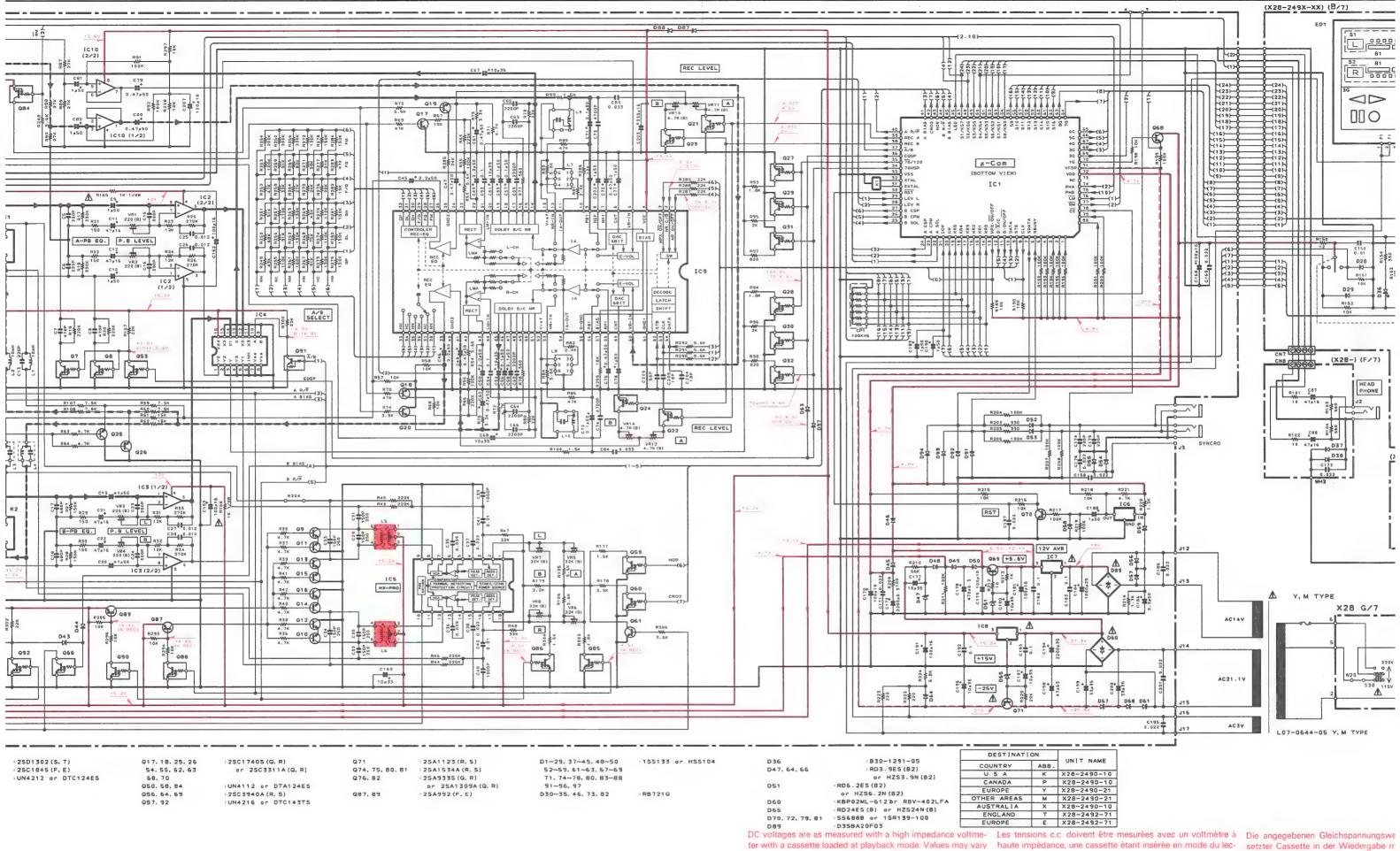
## PC BOARD (Component side view)

RECORD/PLAYBACK AMPLIFIER UNIT (X28-2490-10 : K, P, X 0-21 : Y, M 2-71 : T, E)





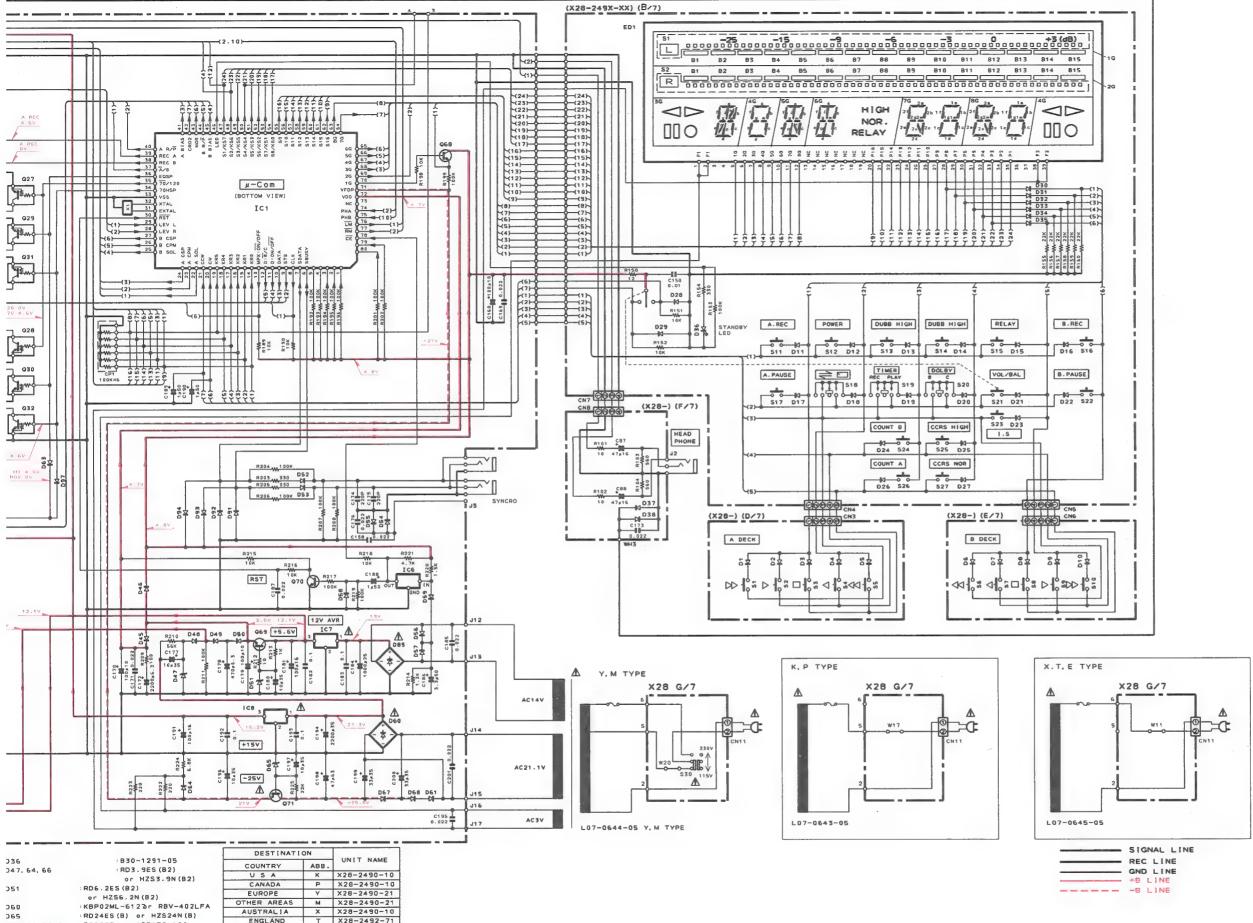
DC voter with slight or/an the re



slightly due to variations between individual instruments ture. Les valeurs peuvent différer légèrement du fait des variaor/and units. Bias circuit DC voltages are as measured while in tions inhérentes aux appareils et aux instruments de mesure the record mode.

Les tensions c.c. du circuit de polarité doivent être mesurées, Gleichspannungswerte der Vorma l'appareil étant en mode d'enregistrement.

werte aufgrund von Unterschieden strumenten oder Geräten u. U. geringf wurden in der Aufnahme-Betriebsart ge





UN4212 UN4216 2SA1309A 2SC3311A





XRU4052B



TA8125S



PST529D

UPC1297CA



NJM4565D-D



2SA1123 2SA1534A 2SA992

2SC1845 2SC3940A 2SD1302



UN4112 DTA124ES 2SA933S DTC124ES DTC143TS 2SC1740S

:S56888 or 1SR139-100 :D3SBA20F03 **370, 72, 79, 81** E X28-2492-71 289

ecord mode

individuels.

l'appareil étant en mode d'enregistrement.

oltages are as measured with a high impedance voltme- Les tensions c.c. doivent être mesurées avec un voltmètre à Die angegebenen Gleichspannungswerte wurden bei einge- CAUTION: For continued safety, replace safety critical compowurden in der Aufnahme-Betriebsart gemessen.

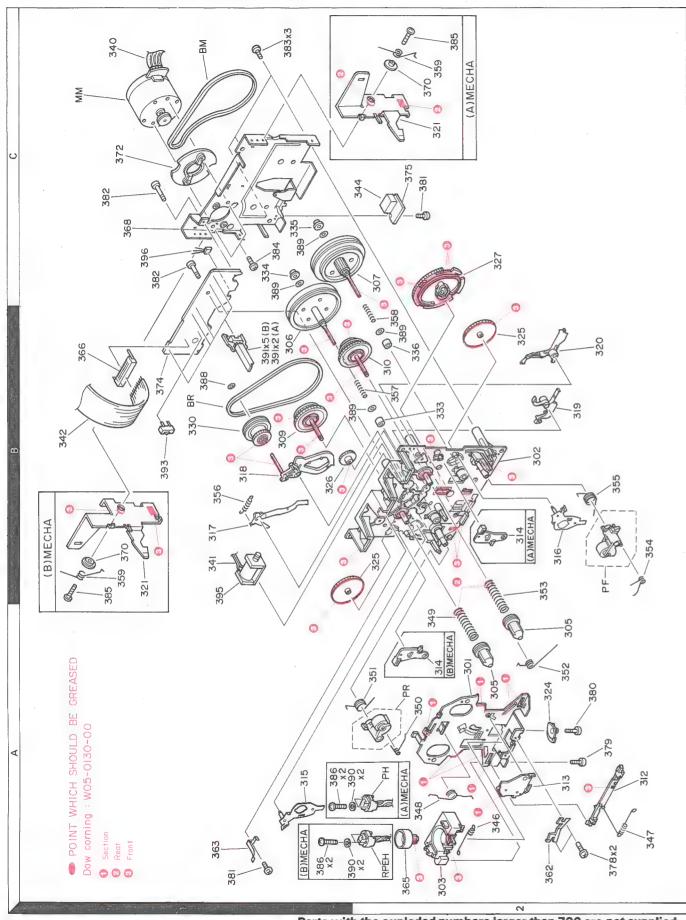
ith a cassette loaded at playback mode. Values may vary haute impédance, une cassette étant insérée en mode du lecsetzter Cassette in der Wiedergabe mit einem hochohmigen nents only with manufacturer's recommended parts (refer to If y due to variations between individual instruments ture. Les valeurs peuvent différer légèrement du fait des varia
Spannungsmesser gemessen. Dabei schwanken die Meßparts list). 
Indicates safety critical components. To reduce the d units. Bias circuit DC voltages are as measured while in tions inherentes aux appareils et aux instruments de mesure werte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u. U. geringfügig. Die angegebenen shall be carried out (exposed parts are acceptably insulated from Les tensions c.c. du circuit de polarité doivent être mesurées, Gleichspannungswerte der Vormagnetisierungsschaltung the supply circuit before the appliance is returned to the custom-



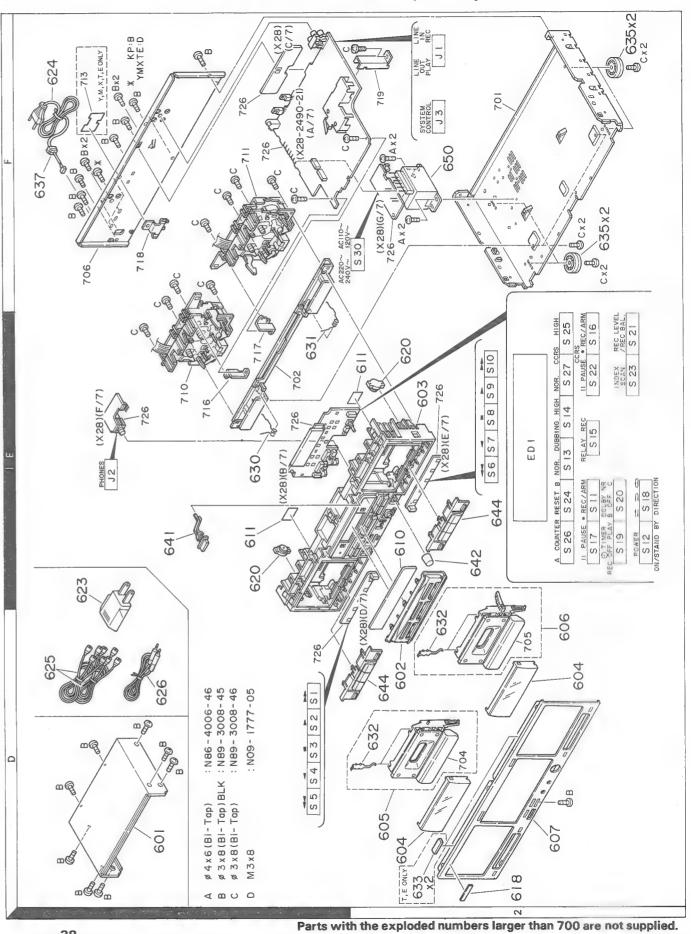
KX-W6050 KX-W6050

## **EXPLODED VIEW (UNIT)**

# **EXPLODED VIEW (MECHANISM UNIT)**



Parts with the exploded numbers larger than 700 are not supplied.



# KX-W6050 KX-W6050

#### \* New Parts

### **PARTS LIST**

Parts without Parts No. are not supplied.

Les articles non mentionnes dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht gellefert.

ı	Ref. No.	Address 位 置	Parts		Description	Desti- Re
ŀ	参照番号	位置	新	部品番号	部品名/規格	仕 向備
-	· · · · · · · · · · · · · · · · · · ·	ı	Τ-	KX	(-W6050	
	601 601 602 603 604	1D 1D 2D 2E 2D	* * * * *	A01-3018-01 A01-3031-01 A21-1824-03 A22-1603-11 A53-1383-14	METALLIC CABINET METALLIC CABINET DRESSING PANEL SUB PANEL CASSETTE LID	KPYMX TE
l	605 606 607 607	2D 2D 2D 2D 2D	* * *	A53-1384-03 A53-1386-03 A60-0325-02 A60-0367-02	CASSETTE HOLDER ASSY CASSETTE HOLDER ASSY PANEL PANEL	KPYMX TE
ı	610 611 618 -	2E 1E,2E 2D	*	B03-2806-03 B07-1720-04 B43-0287-04 B46-0092-13 B46-0094-03	DRESSING PLATE ESCUTCHEON KENWOOD BADGE WARRANTY CARD WARRANTY CARD	K Y
	- - -		*	B46-0095-03 B46-0096-33 B46-0121-23 B46-0122-23 B46-0143-13	WARRANTY CARD WARRANTY CARD WARRANTY CARD WARRANTY CARD WARRANTY CARD	Y X P E T
	-		* *	B46-0197-00 B58-0513-04 B60-1062-00 B60-1063-00 B60-1064-00	QUESTIONAIRE CARD CAUTION CARD (PRESET220-240) INSTRUCTION MANUAL (ENGLISH) INSTRUCTION MANUAL (FRENCH) INSTRUCTION MANUAL (CHINESE)	K Y PB M
	-		*	B60-1065-00 B60-1066-00	INSTRUCTION MANUAL (SPANISH) INSTRUCTION MANUAL (GE,DU,IT)	ME E
١	620	1E,2E		D39-0176-05	DAMPER	
	623 624 624 624 624	1E 1F 1F 1F 1F	*	E03-0115-05 E30-2592-15 E30-2605-05 E30-2650-05 E30-2717-05	AC PLUG ADAPTER AC POWER CORD AC POWER CORD AC POWER CORD AC POWER CORD	M ME Y KP X
ŀ	624 625 626	1F 1D 1D		E30-2721-05 E30-0505-05 E30-2733-05	AC POWER CORD AUDIO CORD CORD WITH PLUG	Т
ľ	630 631 632 633	1E 1E 2D 2D	*	G01-3516-04 G01-3517-04 G02-0944-04 G13-0439-04	TORSION COIL SPRING TORSION COIL SPRING FLAT SPRING CUSHION	TE
	-		* * *	H13-0116-04 H50-0512-04 H50-0563-04 H10-5101-12 H10-5102-12	CARTON BOARD ITEM CARTON CASE ITEM CARTON CASE POLYSTYRENE FOAMED FIXTURE POLYSTYRENE FOAMED FIXTURE	X KPYMXE T KPYMXE KPYMXE
:	-		*	H10-5420-02 H10-5421-02 H20-0554-04 H25-0232-04 H25-0330-04	POLYSTYRENE FOAMED FIXTURE POLYSTYRENE FOAMED FIXTURE PROTECTION COVER PROTECTION BAG (235X350X0.03) PROTECTION BAG	T T M KPYMXE KPYXB
	-			H25-0651-04 H25-0658-04	PROTECTION BAG (0232 PRINTED) PROTECTION BAG (0330 PRINTED)	T

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ndicates safety critical components.

### RECORD/PLAYBACK UNIT

Unit No.	Destination
X28-2490-10	K, P, X
X28-2490-21	Y, M
X28-2490-71	T, E

### MECHANISM ASSEMBLY

D40-1267-05	A DECK : K, P, Y, M, X
D40-1268-05	B DECK : K, P, Y, M, X
D40-1269-05	A DECK : T, E
D40-1270-05	B DECK : T, E

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	Ref. 参照		Address 位 置	New Parts 新	Parts No. 部品番号	Descrip 部 品 名 /	tion ⁄規	格	Desti- nation 仕 向	Re- marks 備考
<b>1</b> .	635 635 635 637		2F 2F 2F 1F		J02-1013-05 J02-1024-05 J02-1034-05 J42-0083-05		EAR RONT IG		KP KP YMXTE	
	641 642 644		1E 2E 2D,2E	*	K29-3592-04 K29-5627-04 K29-5626-03	KNOB EJECT KNOB REC LEVEL,RE KNOB PLAY	EC BA	LANCE		
1. 1.	650 650 650		2F 2F 2F	* *	L07-0643-05 L07-0644-05 L07-0645-05	POWER TRANSFORMER POWER TRANSFORMER POWER TRANSFORMER	}		KP YM XTE	
	A B C D		2F 1D,1F 1E,1F 1F		N86-4006-46 N89-3008-45 N89-3008-46 N09-1777-05		TITE TITE SX8	SCREW	YMXTE	
		ORD/P	LAYBA	CK		(X28-2490-10 : K, P			2-71:	T, E)
	D36				B30-1291-05	LED(LN21CPSLX(V)-	-(TA4	.))		
	C3 C5 C7	2 4 6 8 10			CQ92FM1H222J CE04KW1V100M CC45FSL1H221J CK45FB1H471K CE04KW1H010M	MYLAR 2200 ELECTRO 10UF CERAMIC 220P CERAMIC 470P BLECTRO 1.0U	e PF	J 35WV J K 50WV		
	C11 . C13 . C15 . C17 .	16 18			CE04KW1C470M CC45FSL1H221J CK45FB1H391K CK45FB1H681K CE04KW1H010M	ELECTRO 47UF CERAMIC 220P CERAMIC 390P CERAMIC 680P ELECTRO 1.0U	F F	16WV J K K Sowv		
	C21 , C23 , C25 - C29 - C35 ,	28 34			CE04KW1C470M CK45FB1H391K CQ92FM1H123J C91-1434-05 CF92FV1H393J	ELECTRO 47UF CERAMIC 390P MYLAR 0.01 FILM 150P MF 0.03	F 2UF F	16WV K J J		
	C37 , C39 , C41 , C45 , C47 ,	40 42 46			CQ92FM1H223J CK45FB1H102K CQ92FM1H103J CE04KW1H2R2M CE04KW1HR47M	MYLAR 0.02 CERAMIC 1000 MYLAR 0.01 ELECTRO 2.2U ELECTRO 0.47	PF OUF IF	J K J 50 <b>WV</b> 50WV		
	C49 , C51 , C53 , C55 - C59 ,	52 54 58			CE04KW1H2R2M CE04KW1V100M CF92FV1H104J CB04KW1H0R1M CQ92FM1H222J	ELECTRO 2.2U ELECTRO 10UF MF 0.10 ELECTRO 0.1U MYLAR 2200	UF IF	50WV 35WV 50WV J		
	C61 , C63 - C67 , C69 , C71 ,	66 <b>68</b> 70			CE04KW1HR47M CQ92FM1H222J CE04KW1V100M CQ92FM1H562J CE04KW1H0R1M	ELECTRO 0.47 MYLAR 2200 ELECTRO 30UF MYLAR 5600 ELECTRO 0.1U	PF	50WV J 35WV J 50WV		
	C73 , C75 , C77 , C79 ,	76 78 80			CQ92FM1H472J CE04KW1HR47M CE04KW1H010M CE04KW1HR47M CE04KW1H010M	MYLAR 4700 ELECTRO 0.47 ELECTRO 1.0U ELECTRO 0.47 ELECTRO 1.0U	UF IF UF	J. 50WV 50WV 50WV		
	C83 , C87 ,		:		CF92FV1H333J CE04KW1C470M	MF 0.03 ELECTRO 47UF		J 16 <b>WV</b>		

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参照番号	位置	野 新	部	品	番 号		部。	品	名/規	格	mark: 備考
C150 C151 C152,153 C154 C155			C91-0 CE04K CE04K CQ93H CQ92F	W1C W1C P2A	330M 101M 103J	CERAMIC ELECTRO ELECTRO MYLAR MYLAR			0.01UF 33UF 100UF 0.010UF 8200PF	K 16WV 16WV J J	
C156,157 C158 C159,160 C161 C162			CQ92F CK45F CE04K CQ93H CE04K	F1H W1V P2A	223Z 100M 103J	MYLAR CERAMIC ELECTRO MYLAR ELECTRO			6800PF 0.022UF 10UF 0.010UF 10UF	J Z 35WV J 35WV	
C163 C164,165 C166 C167 C168			CQ92F CQ92F CE04K CE04K CE04K	M1H W1H W1V	682J R47M 100M	MYLAR MYLAR ELECTRO ELECTRO ELECTRO			8200PF 6800PF 0.47UF 10UF 100UF	J J 50WV 35WV 10WV	
C169 C170 C171 C172 C173			CK45F CE04K CK45F CE04E CK45F	W1A F1H WOJ	101M 223Z 222M	CERAMIC ELECTRO CERAMIC ELECTRO CERAMIC			0.022UF 100UF 0.022UF 2200UF 0.022UF	Z 10WV Z 6.3WV Z	
C174,175 C176 C177 C178 C179			CC45F CK45F CE04K CE04K CE04K	F1H W1V W0J	100M 471M	CERAMIC CERAMIC ELECTRO ELECTRO ELECTRO			220PF 0.022UF 10UF 470UF	J Z 35WV 6.3WV 10WV	
C180 C181 C182,183 C184 C185			CEO4K CEO4K CF92F CEO4E CK45F	W1C V1H W1E	101M 104J 102M	ELECTRO BLECTRO MF ELECTRO CERAMIC		(	10UF 100UF 0.10UF 1000UF 0.022UF	35WV 16WV J 25WV Z	
C186 C187 C188-190 C191 C192,193			CE04K CK45F CE04K CE04K CF92F	F1H W1H W1C	223Z 010M 101M	ELECTRO CERAMIC ELECTRO ELECTRO MF		(	3.3UF 0.022UF 1.0UF 100UF 0.10UF	50WV Z 50WV 16WV J	
C194 C195 C196,197 C198 C199,200		*	C90-3 CK45F CE04K CE04K CE04K	F1H W1V W1J	223Z 100M 470M	ELECTRO CERAMIC ELECTRO ELECTRO ELECTRO		1	2200UF 0.022UF 10UF 47UF 33UF	35WV Z 35WV 63WV 35WV	
C201 C202 C203 C204,205 C206			CK45F CE04K CE04K CC45F CC45F	W1H W1C SL1	010M 331M H180J	CERAMIC ELECTRO ELECTRO CERAMIC CERAMIC		1	0.022UF 1.0UF 330UF 18PF 56PF	Z 50WV 16WV J J	
C207 C208,209 C210 C211			CE04K CC45F CE04K CK45F	SL2	H100D 100M	ELECTRO CERAMIC ELECTRO CERAMIC		1	100UF 10PF 10UF 1.022UF	10WV D 35WV Z.	
J1 J2 J3		*	E63-0 E11-0 E11-0	208	-05	PHONO JA PHONE JA MINIATUR	CK	101	LINE I PHONES NE JACK		
J6			J11-0	098	-05	WIRE CLA	MPER	₹			

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Ref. No.	1	arts		Desti- Re nation mar
参照番号	位置:	新部品署	部 品 名 / 規 格	仕 向備
L1 .2 L3 .4 L5 .6 L7 .8 L9 ,10	1 1	* L40-1035-2 L39-0171-0 L32-0556-0 L79-1209-0 L39-0126-0	TRAP COIL D5 BIAS OSCILATING COIL LC FILTER	
L20 ,21 X1		* L32-0554-0 L78-0294-0		
CP1 R163,164 R165,166 R172 R184		R90-0500-0 RD14NB2E27 RD14NB2E10 RD14NB2E10 RD14NB2E10	71J RD 270 J 1/4W 02J RD 1.0K J 1/4W 00J RD 10 J 1/4W	
VR1 -4 VR5 -8 VR11-14 VR50 VR51		R12-0605-0 R12-3686-0 R12-1619-0 R12-3685-0 R12-1619-0	TRIMMING POT.(22K) TRIMMING POT.(4.7K) TRIMMING POT.(10K)	
VR52 VR53		R12-3685-0 R12-1619-0		
K1 ,2 S1 -17 S18 -20 S22 -27 S30		S76-0018-0 S40-1064-0 S31-1036-0 S40-1064-0 S31-2131-0	PUSH SWITCH SLIDE SWITCH PUSH SWITCH	YM
S21	,	* T99-0531-0	SPEED DETECTOR	
D1 -29 D1 -29 D30 -35 D37 -45 D37 -45		HSS104 1SS133 RB721Q HSS104 1SS133	DIODE DIODE DIODE	
D46 D47 D47 D51 D51		RB721Q HZS3.9N(B2 RD3.9ES(B2 HZS6.2N(B2 RD6.2ES(B2	ZENER DIODE ZENER DIODE	
D52 -59 D52 -59 D60 D61 -63 D61 -63		HSS104 1SS133 KBP02ML-61 HSS104 1SS133	DIODE DIODE DIODE DIODE DIODE	
D64 D64 D65 D65 D66		HZS3.9N(B2 RD3.9ES(B2 HZS24N(B) RD24ES(B) HZS3.9N(B2	ZENER DIODE ZENER DIODE ZENER DIODE ZENER DIODE	
D66 D67 -69 D67 -69 D70 D70		RD3.9ES(B2 HSS104 1SS133 S5688B 1SR139-100	DIODE DIODE DIODE	
D71 D71 D72		HSS104 1SS133 S5688B	DIODE DIODE	

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参照番号	位 置	新	部品番号	部品名/規格	備考
D72 D73 D74 -78 D74 -78 D79			1SR139-100 RB721Q HSS104 1SS133 S5688B	DIQDE DIQDE DIQDE DIQDE DIQDE	
079 080 080 081 081			1SR139-100 HSS104 1SS133 S5688B 1SR139-100	DIODE DIODE DIODE DIODE DIODE	
D82 D83 -88 D83 -88 D89 D89			RB721Q HSS104 1SS133 D3SBA20F03 RBV-402LFA	DIQDE DIQDE DIQDE DIQDE DIQDE	
D91 -96 D91 -96 D97 D97 ED1		*	HSS104 1SS133 HSS104 1SS133 BJ128GK	DIODE DIODE DIODE DIODE INDICATOR TUBE	
IC1 IC2 ,3 IC4 IC5 IC6		*	CXP82324-1269 TA8125S XRU4052B UPC1297CA PST529D	IC(8BIT MICROPROCESSOR) IC(2CH PRE AMP) IC(MULTIPLEXER/DEMULTIPLEXER) IC(DOL HX PRO SYSTEM) IC(SYSTEM RESET)	
IC7 IC8 IC9 IC10 IC10		*	XRA17812T XRA17815T HA12157NTA NJM4565D-D XRA15218-DX	IC IC IC IC IC(OP AMP X2) IC(OP AMP X2)	
Q1 -4 Q5 ,6 Q7 ,8 Q7 ,6 Q9 -16			2SD1302(S,T) 2SC1845(F,E) DTC124ES UN4212 2SC1845(F,E)	TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR DIGITAL TRANSISTOR TRANSISTOR	
Q17 ,18 Q17 ,18 Q19 ,20 Q21 -24 Q21 -24			2SC1740S(Q,R) 2SC3311A(Q,R) 2SD1302(S,T) DTC124ES UN4212	TRANSISTOR TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR DIGITAL TRANSISTOR	
925 ,26 925 ,26 927 -32 927 -32			2SC1740S(Q,R) 2SC3311A(Q,R) DTC124ES UN4212 DTA124ES	TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR DIGITAL TRANSISTOR DIGITAL TRANSISTOR DIGITAL TRANSISTOR	
Q50 Q51 -53 Q51 -53 Q54 ,55 Q54 ,55			UN4112 DTC124ES UN4212 2SC1740S(Q,R) 2SC3311A(Q,R)	DIGITAL TRANSISTOR DIGITAL TRANSISTOR DIGITAL TRANSISTOR TRANSISTOR TRANSISTOR	
956 957 957 958 958			2SC3940A(R,S) DTC143TS UN4216 DTA124ES UN4112	TRANSISTOR DIGITAL TRANSISTOR DIGITAL TRANSISTOR DIGITAL TRANSISTOR DIGITAL TRANSISTOR	

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Ref. No.	Address	New Parts	Parts No.	Description		Re- mark
参照番号	位 置	新	部品番号	部品名/規格		備考
Q59 ,60 Q59 ,60 Q61 Q62 ,63 Q62 ,63			DTC124ES UN4212 2SD1302(S,T) 2SC1740S(Q,R) 2SC3311A(Q,R)	DIGITAL TRANSISTOR DIGITAL TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR		
964 965 ,66 965 ,66 968 968			2SC3940A(R,S) DTC124ES UN4212 2SC1740S(Q,R) 2SC3311A(Q,R)	TRANSISTOR DIGITAL TRANSISTOR DIGITAL TRANSISTOR TRANSISTOR TRANSISTOR		
969 970 970 971 972 ,73			2SC3940A(R,S) 2SC1740S(Q,R) 2SC3311A(Q,R) 2SA1123(R,S) DTC124ES	TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR		
972 ,73 974 ,75 976 976 977 -79			UN4212 2SA1534A(R,S) 2SA1309A(Q,R) 2SA933S(Q,R) DTC124ES	DIGITAL TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR		
Q77 -79 Q80 ,81 Q82 Q82 Q83			UN4212 2SA1534A(R,S) 2SA1309A(Q,R) 2SA933S(Q,R) DTC124ES	DIGITAL TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR		
Q83 Q84 Q84 Q85 ,86 Q85 ,86			UN4212 DTA124ES UN4112 DTC124ES UN4212	DIGITAL TRANSISTOR DIGITAL TRANSISTOR DIGITAL TRANSISTOR DIGITAL TRANSISTOR DIGITAL TRANSISTOR DIGITAL TRANSISTOR		
987 988 988 989 990 ,91			2SA992(F,E) DTC124ES UN4212 2SA992(F,E) DTC124ES	TRANSISTOR DIGITAL TRANSISTOR DIGITAL TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR		
990 ,91 992 992			UN4212 DTC143TS UN4216	DIGITAL TRANSISTOR DIGITAL TRANSISTOR DIGITAL TRANSISTOR DIGITAL TRANSISTOR 126X-XX) A DECK 7-05:K, P, Y, M,	V 0 05 · T	
		_		. D D L O 1 0 0 0 . 11, 1 , 11, 11, 11, 11, 11, 11, 11, 1	X 0-05 : T,	Ē
301 302 303 305 306	2A 2B 2A 2A 1B	* * * *	A10-3053-08 A10-3054-08 A15-0083-08 B09-0243-08 D01-0154-08	HEAD BASE CHASSIS CALKED ASSY MAIN CHASSIS CALKED ASSY HEAD FLAME REEL CAP FLYWHEEL ASSY L	КРУМХ	
306 307 307 309 310	1B 2C 2C 1B 2B	* * * *	D01-0156-08 D01-0155-08 D01-0157-08 D03-0401-08 D03-0402-08	FLYWHEEL ASSY L FLYWHEEL ASSY R FLYWHEEL ASSY R REEL DESK ASSY(REVERSE) REEL DESK ASSY(FORWARD)	TE KPYMX TE	
312 313 314 315 316	2A 2A 2A,2B 1A 2B	* * * *	D10-3394-08 D10-3395-08 D10-3396-08 D10-3397-08 D10-3398-08	HEAD LEVER ASSIST ARM ASSY EJECT LOCK LEVER PLAY ARM L PLAY ARM R		

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参照番号	位 置	Part:	部品普号	部品名/規格	mation 仕 向	mark 備考
317 318 319 320 321	1B 1B 2B 2B 1B	* * * *	D10-3399-08 D10-3400-08 D10-3401-08 D10-3402-08 D10-3403-08	REVERSE ARM FR ARM BRAKE ARM TRIGER ARM EJECT ARM		В
321 324 325 326 327	2C 2A 2B 1B 2C	* * * *	D10-3404-08 D13-1551-08 D13-1552-08 D13-1553-08 D13-1554-08	EJECT ARM HEAD ARM GEAR PLAY GEAR FERST FORWARD GEAR CAM GEAR		A
330 333 334 335 336	1B 2B 1C 1C 2B	* * * *	D15-0352-08 D23-0297-08 D23-0298-08 D23-0299-08 D23-0300-08	FR PULLEY ASSY BEARING METAL A BEARING METAL B BEARING METAL D BEARING METAL C		
340 341 342 342 344	1C 1B 1B 1B 2C	* * *	E31-7731-08 E35-0643-08 E35-0644-08 E35-0645-08 E40-4688-08	MOTOR WIRE SOLENOID CONNECTING WIRE MECHA CONTROL CONNECTING WIRE MECHA CONTROL CONNECTING WIRE HOLDER		ВА
346 347 348 349 350	2A 2A 2A 2A 2A	* * * *	G01-3587-08 G01-3588-08 G01-3589-08 G01-3590-08 G01-3591-08	HEAD FLAME SPRING HEAD LEVER SPRING HEAD CHASSIS SPRING REEL SPRING PINCH ROLLER SPRING L		
351 352 353 354 355	2A 2A 2B 2B 2B	* * * *	G01-3592-08 G01-3593-08 G01-3594-08 G01-3595-08 G01-3596-08	PINCH ROLLER SPRING L TORSION COIL SPRING REEL SPRING R PINCH ROLLER SPRING R PINCH ROLLER SPRING R		
356 357 358 359 359	1B 2B 2B 1B 2C	* * * *	G01-3597-08 G01-3598-08 G01-3599-08 G01-3600-08 G01-3601-08	REVERS ARM SPRING FLYWHEEL SPRING L FLYWHEEL SPRING R EJECT LEVER SPRING EJECT LEVER SPRING		B A
362 363 365 366 368	2A 1A 2A 1B 1C	* * * *	G02-1027-08 G02-1028-08 J19-3592-08 J19-3593-08 J21-6020-08	AZIMUTH SPRING CASSETTE SPRING HEAD HOLDER ASSY LEAD HOLDER FW BRACKET		
370 372 374 375 378	1B,2C 1C 1B 2C 2A	* * * * *	J31-0861-08 J39-0178-08 J70-0442-08 J70-0443-08 N09-3011-08	EJECT COLLER SPACER PRINTED WIRING BOARD PRINTED WIRING BOARD SCREW		
379 380 381 382 383	2A 2A 1A,2C 1C 1C	* * * *	N09-3012-08 N09-3013-08 N09-2789-08 N09-3015-08 N09-3016-08	SCREW SCREW SCREW SCREW SCREW		
384 385 386 388 389	1C 1B,2C 1A, 1B 2B,1C	* * * * *	N09-3017-08 N09-3018-08 N09-3019-08 N19-1334-08 N19-1335-08	SCREW SCREW HEAD SCREW WASHER WASHER		

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A: A DECK B: B DECK

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参照番号	位置	新	部品署号	部品名/規格		備考
390 391 393 395 396	1 A 1 B 1 B 1 B 1 C	* * * *	N19-1338-08 S74-0020-08 S90-0115-08 T94-0231-08 T95-0129-08	HEAD WASHER LEAF SWITCH MODE SWITCH SOLENOID ASSY HALL IC		
BM BM BR PF PR	1C 1C 1B 2B 2A	* * * * *	D16-0350-08 D16-0351-08 D16-0349-08 D14-0350-08 D14-0349-08	MAIN BELT MAIN BELT REEL BELT PINCH ROLEER ASSY PINCH ROLLER ASSY	KPYMX TE	
MM MM PH RPEH	1C 1C 2A 2A	*	T42-0639-08 T42-0640-08 T31-0066-08 T39-0020-08	DC MOTOR ASSY DC MOTOR ASSY PLAY HEAD RECODE/PLAY/ERASE HEAD	KPYMX TE	A B

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A: A DECK

B: B DECK

### **SPECIFICATIONS**

Track System 4 track, 2 channel stereo
Recording System AC bias (Frequency: 105 kHz)
Heads A DECK
Playback/recording heads 1
Erasing head
B DECK
Playback/recording heads 1
Erasing head 1
Motors A DECK DC motor × 1
B DECK DC motor × 1
Wow and Flutter ±0.18% (IEC)
±0.3% (DIN)
0.09% (W.RMS)
Fast Winding Time Approx. 115 seconds (C-60
tape)
Frequency Response
Normal Tape 25 Hz to 16,000 Hz, ±3 dB
CrO <sub>2</sub> Tape
Metal Tape 25 Hz to 18,000 Hz, ±3 dB
Signal to Noise Ratio
Dolby NR OFF 52 dB
(IEC, 250 nWb/m, Metal tape)
Dolby NR OFF 59 dB
Dolby B NR ON 68 dB
Dolby C NR ON 74 dB
(3rd, H.D., 3%, Metal tape)
Harmonic Distortion Less than 3.0%
(at 315 Hz, 3rd H.D., 250 nWb/m, Metal tape)
Input sensitivity/Impedance
LINE IN 122.8 mV/47 kΩ
Output Level/Impedance
LINE OUT 775 mV/0.9 kΩ
Headphones

[General]		
Power Consumption	25 W	
	W: 440 mm (17-5/16	<b>"</b> )
	H: 137 mm (5-3/8")	
	D: 269 mm (10-9/16	~)
Weight (Net)	4.7 kg (10.3 lb)	

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#### Note:

Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on the U.S.A. (K) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.

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